

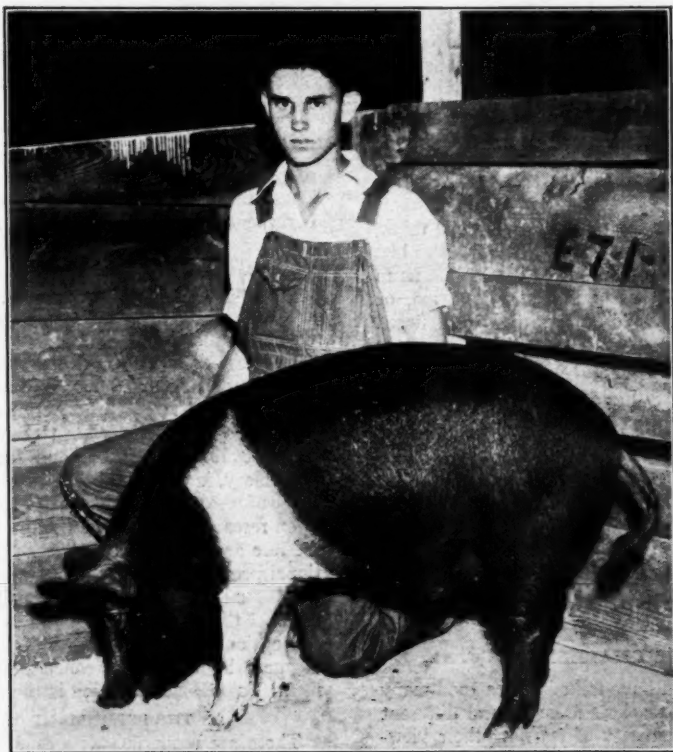
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Agricultural Education



Harmon Wilkinson, Mound City, Missouri, with his Hampshire barrow which was champion at the Midwest Vocational Livestock Show at Kansas City in September. He is typical of thousands of others who will soon be in a position to revolutionize the business of agriculture

The greatest function of the Future Farmers of America is the development of an intelligent and aggressive leadership among farmers.—Dickinson

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

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TIME TO THINK

WE ARE all so busy, or think we are, with the thousand and one matters that keep crowding us for attention, that I am sure we neglect that most important activity which is the sole possession of human beings.

Thinking—what a wonderful ability, but how woefully neglected! We spend so much time *doing* that we never “catch up on our thinking.” The inevitable happens, that is, we *do* without *thinking* first. This is the usual cause of the mistakes we make.

What is the trouble? Assuming that most of us *can* think, why don't we do it? I believe that I know. Our job is so big, there is so much to be done, pressure is so great upon us to do it, that we go ahead—trusting that our intuition, or providence, or just good luck will see us thru. We are urged to do so much that the factor of *thinking*, an inconspicuous act, is lost sight of and no time allowed for it. Supervisors and itinerant teacher trainers, who should know better, are constantly urging us to take on more and more responsibility. This, added to the local urges, is sometimes, to put it mildly, *too much*.

What to do? First of all, convince yourself of the importance of thinking and the necessity of having time for it. Second, study your activities carefully, and eliminate those of least importance until you have allowed yourself time to think about your most important activities. Third, utilize this time to good advantage in *purposeful thinking*.—S. D.

ACCEPT THE CHALLENGE

DURING recent months I have talked with a good many vocational agriculture teachers from several different states. I have had an opportunity of learning their viewpoints as to their position in connection with the present trying situation which has been named “depression.”

It is interesting to note that teachers quite generally are adopting either one of two attitudes, each definitely opposed to the other. One group is standing up squarely and meeting the challenge of the times with the feeling that now if ever there is something that must and can be done to modify the difficulties, and that if anyone is in a position to help, they are the ones.

Those in the other group, and they are far too many, are just “sitting tight,” hoping that no one will call upon them directly to get into the battle, trusting that “things will straighten out soon” and that their jobs will not go by the board. Some of these men actually seem to think that there is nothing the vocational teacher *can* do under the circumstances.

It's times like these that try men's souls and at the same

time discover the thinkers and doers among us. Any ordinarily intelligent teacher can make a showing when sailing is smooth; it takes a good man to keep the boat afloat when seas are rough.

Now is the time to organize *more evening school courses* rather than fewer; to interest *more boys* in part-time work rather than to drop the activity; to *increase supervised practice* emphasis rather than to decrease it. Now if ever, farmers and farm boys need help with their problems. If you can help them, get busy and do it—if you can't help them, make room for somebody who can and *will*.—S. D.

RESEARCH AND THE TEACHER OF AGRICULTURE



E. C. Magill

ALL thinking is research” appeared on the cover of a vocational periodical with John Dewey as authority. The conclusion then might be that when teachers of agriculture *think* they are doing research.

“Persistent, stubborn effort to find out the truth” might be termed research. Man seems eternally obsessed with inquisitive desires to know how to do things more easily and to be eternally asking the question of “why.”

Those who go about this business of questioning in a methodical purposeful way are doing research. Successful instructors of agriculture find their jobs interesting and are continuously improving their efficiency because there are the elements of research in their daily living.

Research is not a hidden mysterious formula known only to the bespectacled worker. It enjoys something of contempt and derision from those who are impatient of details and who prefer action to mental effort. Yet real progress in every field of human endeavor has waited upon research. Agriculture developed slowly—very slowly—thruout the centuries until research began. The centennial this year of the McCormick reaper born of research of a 22-year-old farm boy and his father and the forerunner of modern machinery, is one of thousands of reminders of the importance of research. The dream of man flying like a bird waited upon research to show the way.

Mere armchair philosophy has held the saddle in educational progress. Educational and psychological research has but begun. Yet this small beginning has revolutionized educational thought in a few decades. It has knocked the old conception of mind training into a cocked hat. It has given us more hopeful views concerning heredity and environment. Vocational education is the child of research.

THE DEPARTMENT OF RESEARCH

There are numerous reasons why a Department of Research now appears in *Agricultural Education*. It is intended more for the instructor of agriculture than the teacher trainer or supervisor.

First, there are results secured annually from research which are of value to all workers in vocational agriculture. But that of value along with that of little value commonly remains buried in files. In few cases is the research known beyond the confines of the state in which it was carried on. Research purposes to discover the truth that exists. It might as well have been left undone if it remains unknown.

Second, when good work is done by fellow workers it should be known by all. Recognition is a rightful award for patient thoughtful efforts. The possibility of broadcasting commendable research in vocational agriculture should assist in stimulating research.

Third, since every thinking instructor is really an investi-

(Continued on page 107)



Supervised Practice



Suggested Activities for Developing Supervised Practice Problems Common to a Group of Beginning Students

DON M. ORR, Agricultural Education, Oklahoma A. and M. College

IT IS perhaps well to keep in mind the fact that a program of supervised practice is not an end within itself, but a means of realizing the primary aim of vocational education in agriculture which is: "To train present and prospective farmers for proficiency in farming." It may help teachers to keep the primary aim and contributory objectives of vocational agriculture in mind while arranging for programs of supervised practice, in the study and planning for supervised practice activities, in doing actual work on projects and other supervised practice, and in keeping and interpreting supervised practice records and accounts.



Don M. Orr

Any program of supervised practice should include the project, but the project should not be the only type of supervised practice considered by boys in planning their individual programs of supervised practice. Many students are not in a position to have the number and kind of projects necessary for a well rounded development. On the other hand many such students may have opportunities for desirable supervised practice not possible for them in project work.

(The following suggestions are based on the assumption that the teacher is familiar with the home conditions of the students.)

LESSON 1

Problem: Orienting beginning students in vocational agriculture.

Purpose: (A) To assist beginning students of vocational agriculture in recognizing the nature and number of abilities they will need to develop for proficiency in farming.

(B) To assist beginning students of vocational agriculture in recognizing the nature and scope and purpose of supervised practice work.

Suggested Activities:

1. Summarize and study brief surveys of the home farms of the students.
2. Use the conference procedure in helping the students recognize the nature and number of abilities they must have to successfully operate farms represented by students in the class.

3. Have students make tentative lists of things they need to know and learn how to do.

4. Show the relationship of the supervised practice work to the class work.

5. Discuss with the students the advisability of having ownership and management of an enterprise as a means of developing ability in farming.

6. Have the students make a list of the factors they must consider before they can make wise decisions concerning supervised practice programs.

Time Required: Two to four days.

LESSON 2

Problem: Selecting programs of supervised practice.

Purpose: (A) To assist beginning students in selecting programs of supervised practice suited to their respective needs and abilities.

(B) To assist beginning students of vocational agriculture in recognizing desirable purposes or objectives of supervised practice work.

Suggested Activities: (This lesson may be considered a continuation of lesson number 1.)

1. Have each student make estimates of the amount of money he will need during the next year for school, clothing, savings, and so forth, that might be provided by project work or other supervised practice.

2. Study the market outlook for the different enterprises on the home farms of the students.

3. Make a comprehensive study of the possibilities of making a profit from the main enterprises on the home farms of the students.

4. Consider the advisability and possibility of learning to do the farmer's jobs of the main enterprises on the home farms of the students.

5. Consider the possibility and advisability of using animals or crops owned by the students as a part of their individual supervised practice programs.

6. Estimate the amount of time needed for carrying on proposed programs of supervised practice.

7. Estimate the amount of time each student will have for carrying on proposed programs of supervised practice.

8. Estimate the amount of capital needed for carrying on proposed programs of supervised practice.

9. Other factors may be considered. Have each student make a tentative program of supervised practice. It may be well to place the emphasis on the activities for the first year. The final approval of plans will need to be completed in conference with the individual students and their parents.

Time Required: Five to ten days.

LESSON 3

Problem: Defining supervised practice purposes or objectives.

Purpose: (A) To enable students to recognize clear and definite purposes or objectives for their individual supervised practice programs.

(B) To get the students to write their supervised practice purposes or objectives in their supervised practice books.

Suggested Activities:

1. Study and criticize the purposes or objectives set up by other students.

2. Study the achievements of other students doing supervised practice work.

3. Have students write out tentative purposes or objectives for their individual supervised practice programs.

4. After the purposes recognized by the students have been approved they may be directed in writing them in their supervised practice books.

Time Required: Two to three days.

LESSON 4

Problem: Working out business arrangements for supervised practice programs.

Purpose: (A) To teach the students the essentials of a desirable business arrangement suitable for project work and other forms of supervised practice.

(B) To enable the students to secure desirable business arrangements for their projects and other supervised practice work.

(C) To get the business arrangements written in the supervised practice book.

Suggested Activities:

1. Study the fairness and completeness of the business arrangements some student now has with his father.

2. Study the business arrangements—division of crops, division of livestock, cash rent, and so forth—customary for the major enterprises in the community.

3. Have students write out what they consider to be desirable business arrangements for their supervised practice.

4. After the students' business arrangements have been approved and corrected they may be entered in the supervised practice book.

Time Required: Two to three days.

LESSON 5

Problem: Making supervised practice inventories and starting records and accounts.

Purpose: (A) To enable the students to understand the purpose of keeping accounts and records.

(B) To familiarize the students with

the supervised practice book.

(C) To make such inventories as are necessary in the supervised practice work.

(D) To start the supervised practice records.

Suggested Activities:

1. Make a brief study of the value of keeping records and accounts.

2. Make a list of the records necessary on different enterprises.

3. Go thru the Supervised Practice Book and call attention to the different parts of the book.

4. Direct and supervise the students in making their inventories.

5. Direct and supervise the students in starting their records.

Time Required: One to two days.

LESSON 6

Problem: Recognizing problems and jobs that may arise in the conduct of supervised practice work.

Purpose: (A) To teach the students to recognize the problems and jobs that may arise in the conduct of their individual supervised practice programs.

(B) To have the students write their lists of problems and jobs in their supervised practice book.

Suggested Activities:

1. Use the conference method of making a complete list of jobs or problems some boy must consider in the conduct of his project.

2. Have each boy write out and hand in a complete list of jobs or problems he must consider in the conduct of his project and other supervised practice.

3. After the above lists have been reviewed by the teacher and corrected by the students they may be entered in the supervised practice books. (*Note:* It may be best to have each boy complete the problems or jobs for his main supervised practice activity before he starts on the supplementary practices.)

Time Required: Two to four days.

LESSON 7

Problem: Recognizing decisions and factors influencing decisions that must be made in the conduct of supervised practice work.

Purpose: (A) To teach the students to recognize the decisions they must make in the conduct of their supervised practice work.

(B) To teach the students to recognize factors influencing the decisions that they must make in their supervised practice work.

(C) To have the students write in their supervised practice books the decisions, and the factors influencing the decisions that they must make in their supervised practice activities.

Suggested Activities:

1. Use the conference procedure in helping the students recognize the decisions one boy must make in the conduct of his project.

2. Use the conference procedure in helping the students recognize the factors influencing the decisions set up.

3. Study and criticize the decisions and factors listed by older students.

4. Have each boy write out the decisions and factors influencing the decisions he must make in the conduct of his project.

5. After the decisions and factors have been reviewed by the teacher and corrected by the students they may be entered in the supervised practice books.

Time Required: Two days.

LESSON 8

Problem: Studying supervised practice jobs and problems.

Purpose: (A) To teach the students how to study their supervised practice jobs and problems.

(B) To teach the students how to summarize their study of approved practices.

Suggested Activities:

1. Discuss with the students the advisability and importance of studying the jobs and problems arising in their supervised practice.

2. The teacher may select a short problem or job, such as control of coccidiosis, to use as a type case in teaching the students how to study and summarize the subject matter they have studied.

(a) Have the students help list on the board the things they need to know to control coccidiosis, namely, cause, symptoms, treatment, prevention, and so forth.

(b) Supply the students with suitable reference material on coccidiosis and indicate the exact part to be studied.

(c) The teacher may read a few paragraphs to the students. As he does so he may clear up vague or difficult points and note things that are important.

(d) The students may help the teacher summarize the things he has read. The summary may be written on the board.

(e) Have the students read and summarize short assignments. The summaries may be written on the board or given orally.

Note: Additional suggestions on methods of teaching students how to study may be secured from "Modern Methods in High School Teaching" by Douglass, chapter 5.

Time Required: One day with review as needed.

LESSON 9

Problem: Planning the project.

Purpose: (A) To teach the students how to secure and summarize information on approved practices related to their supervised practice activities.

(B) To teach the students how to write plans for their supervised practice work.

(C) To have the students write their supervised practice plans in their supervised practice books.

Suggested Activities:

1. Instruct students in the method of securing and using references.

2. See that each student is supplied with suitable reference material on one or more problems or jobs of seasonal importance that he needs to study.

3. Have each student study and write out a summary of the approved practice of doing one or more problems that are of seasonal importance to him. (*Note:* Individual suggestions to each student on what he is to study and references that he may use may be written on paper and fastened in the supervised practice books.)

4. Work done by the students may be handed in at the end of the period to be checked by the teacher.

5. After the notes on approved practices have been corrected and approved the students may be directed in writing them in their supervised practice books.

6. Have each student write out and hand in rather complete and specific notes on how he actually intends to do

the jobs or solve the problems previously studied.

7. After the students' plans have been corrected and approved the students may be directed in writing them in their supervised practice books.

Time Required: Two to three days for each group of jobs or problems studied.

LESSON 10

Problem: Summarizing supervised practice records and accounts.

Purposes: (A) To teach the students how to summarize their supervised practice records and accounts.

(B) To have each student summarize his individual records and accounts.

Suggested Activities:

1. Review with the students the things they need to know to determine the profits or losses on their supervised practice work, to determine their labor income, and so forth.

2. Have the students help summarize a crop project and an animal project. Explain carefully each step involved in making the summary. The form used may be the same as the form on the summary page of the Supervised Practice Book.

3. Direct the students in making summaries of their individual supervised practice activities.

4. After the individual summaries have been corrected and approved the students may be directed in writing the summaries in their supervised practice books.

Time Required: Two to four days.

LESSON 11

Problem: Analyzing supervised practice records and accounts.

Purpose: (A) To teach the students how to analyze their supervised practice records and accounts.

(B) To have each student analyze his supervised practice records and accounts and enter the analyses in his supervised practice book.

Suggested Activities:

1. Discuss with the students the value of making an analysis of their supervised practice activities, and the value of drawing conclusions about their supervised practice. The analysis sheets in the Supervised Practice Books may suggest desirable questions to raise in this discussion.

2. Analyze and draw conclusions on an animal and a crop project with the class to illustrate the method of procedure. The form suggested on the analyses pages of the Supervised Practice Book may be used. Explain carefully each step involved in making the analyses and in drawing the conclusions.

3. Direct the students in making the analyses of their supervised practice records and accounts, and in drawing conclusions concerning the results.

4. After the students' analyses and conclusions have been reviewed by the teacher and corrected and approved they may be entered in the supervised practice book.

5. The results secured by the teacher may be compared with results secured by other students and farmers.

Time Required: Three to five days.

Final figures on vocational agriculture enrollment for 1931 are as follows: All-day, 128,368; evening, 93,989; day-unit, 11,361; part-time, 3,703; total, 237,421.



Part-Time Courses



The Place of a Part-Time Class in a Community Agricultural Program

JAMES H. PEARSON, Specialist, Part-time and Evening Schools.
Federal Board for Vocational Education



J. H. Pearson

BOYS who are classified in the part-time group are responding exceedingly well in a few states to the opportunity presented to them to attend part-time classes. In many other states the agricultural education program has been concentrated on the all-day program or on all-day and evening work.

There still remains, therefore, that great number of boys between the ages of 14 and 24 who are not attending any school and who have had little or no training for the vocation which they will follow. Many of those boys dropped out of school for various reasons, either in the grades or high schools; others are high school graduates who did not pursue the vocational agricultural courses offered in the local school but want to continue to study their agricultural problems.

Most Neglected Group

These out-of-school boys seem to be the group most neglected in the present programs in many of the states. There are many such boys in every community who need the service that a department of vocational agriculture can render thru a part-time class. There is sufficient evidence to prove that boys belonging to that group will attend part-time classes if they are given the opportunity and if the work is so organized that it meets their needs and is offered at a time when they can attend.

More thought and study of the needs of this group should result in an expansion of part-time work. Former students in the all-day classes should serve as an excellent nucleus for the promotion of such work. Part-time work where former students are admitted to the classes serves as an excellent "follow-up" system for those boys. The former students, on account of age and farming experience, do not fit into the evening program, so should be handled in some special group.

There are difficulties which have retarded progress of part-time work. Some of the most outstanding ones are discussed below. With a sound solution of these problems, part-time work should keep pace in its development with the other two types of work, namely, all-day and evening schools.

First, selection of the content of the instruction in agriculture has and always will be a difficult problem. This is due to the wide range in experience,

age, school attainment, and ability of the boys in such a group. The above situation, together with a desire on the part of the boys to enter different types of farming, only seems to complicate the problem. Its solution lies in the teacher's ability to recognize the above situation relative to each boy in the group. He must then deal with each student individually. This means the setting up of a training program for the boy based on the type of farming in which he plans to engage. When all individuals have their training programs so planned the teacher should discover that there are certain identical jobs, also type jobs, which must be taught to all the boys. These should be handled in group instruction. The other jobs in the training programs must then be taught thru individual instruction. The above jobs become the basis for the agricultural instruction in the part-time class and should meet the needs of each individual.

Second, supervised or directed practice has been set up in many cases entirely on a home project basis, often disregarding the individual needs of the boys and presenting a problem in part-time work. When the instruction is based on the training program of the boys as suggested above and includes practice on the jobs which the boys must perform in the type of farming in which they will engage, the supervised or directed practice logically becomes a supplementary farm practice program. If a sufficient number of jobs in one enterprise are included in the individual's training program, they may be so organized that the boy has a home project. In reality, therefore, the boy may have only supplementary farm practices on those jobs taught or he may have a home project involving many jobs in an enterprise to meet his needs and the requirements for supervised or directed practice. With this point of view supervised or directed practice does not present a difficulty with the part-time group.

Correlate Related Instruction

Third, related instruction for the purpose of improving the civic and vocational intelligence of the students has seemed to be one of the most difficult problems in part-time work. The work in many places has been of such a type that it is uninteresting and tends to discourage rather than encourage boys to attend part-time classes. In some cases this work has been made an absolute requirement disregarding the needs of particular groups of part-time students. Instruction in such subjects as agricultural business English, community civics, health and hygiene, and farm

mathematics should be very closely related to the immediate problems of the boys and also those which they will need to solve as farmers. The amount of such related instruction offered for part-time students will depend upon the needs of the specific group and the amount of time available for such instruction. In many cases no related instruction will need to be offered. In general, when it is given it should be as a part of the agricultural work rather than in separate courses. It is very unfortunate if the related instruction is offered and taught by someone who is not sympathetic with the part-time boys and does not recognize their problems and needs.

Fourth, the organization requirements for part-time work has not been sufficiently flexible to make the program workable in a large number of communities. There are at least two types of schools which seem to give most promise in solving this problem. There is the type when the boys go to school from 9 a. m. to 4 p. m. daily the same as all-day students except for only 4 to 16 weeks. In such cases their time is devoted to agriculture and related subjects. There are modifications of this program where the boy attends school less than five days per week or attends only one-half or one-quarter of the day instead of the full day. In the latter case the time for related instruction is necessarily reduced.

Evening Meetings Possible

The other type of organization and the one which seems to be expanding most is where all boys between the ages of 14 and 24 who are not enrolled in any school and who are not established as farmers in a managerial capacity are enrolled. Such groups usually meet in the evening once a week from 7:30 to 9 p. m., for 18 to 24 meetings. The instruction is primarily on agriculture with some recreation and co-operative activities. Very little related instruction is offered and that is given in connection with the agricultural work and not in related courses. Such a part-time organization has wonderful possibilities in filling the missing link between the all-day and evening programs. This type of organization is very popular in the states of Ohio, Wisconsin, and Virginia and will surely develop in many more states.

Having met many teachers during the summer months where there was an opportunity to discuss part-time work, the writer is convinced that there is a renewed interest in it and that there will soon be a healthy growth in that important part of a well-rounded agricultural program.



Evening Schools



A Prize Winning Evening School in the Ozarks

JOE DUCK, Teacher Vocational Agriculture, Neosho, Missouri

[Mr. Duck received the Supervisor's Trophy for the best Evening School Program of 1930-31]



Joe Duck

ONE hundred eight improved practices (not previously used) in poultry production were put into operation by evening school members of the Meeks Evening School, a consolidated school in the Ozarks, near Neosho, Missouri.

One member, J. J. Jenkins, made his dilapidated 14 x 40-foot shed roof laying house into a 20 x 28-foot gable roof, straw loft laying house, as a result of attending the second meeting, on housing. Two members, Mrs. Mills and Mrs. E. E. Roberts, saved their flocks from attacks of coccidiosis thru knowledge gained from the evening school. The 108 improved practices were distributed as follows: feeding baby chicks, 21; housing the laying flock, 14; feeding the laying hens, 14; growing the chicks, 8; securing the chicks, 9; combating diseases, 13; marketing broilers, 5; brooding chicks, 17; culling, 6; breeding, 1.

The above table shows the form of the chart used in recording and reporting initial and improved practices of the members of the school. *b* is placed before the practices used by members previous to the school; *a* is placed before practices put into operation after the school. The chart used was approximately 22 x 28 inches in size. To facilitate the handling of so large a chart it was divided into four equal parts, which were hinged together with Gamble Hinge tape. This device permitted the chart to be folded in any direction.

How Supervised Practice Was Conducted

Directed practice is difficult to secure with adult farmers, but supervised practice may be successfully used. My supervision consisted of help given at the meetings, assistance given while talking with the members on the streets or at other places. Of course, I did not require a written plan to be made of the proposed farm practice; nor did I say anything about keeping records on practice work. In no way did I attempt to dictate. Several members called on me to visit them at critical times, which I did. I did make a record of the initial and improved practices of the members. Obtaining the initial practices and the practices used subsequent to the school was not as difficult as one might think. I took, for instance, the job of feeding baby chicks and selected important approved practices under that job. I found them to be: (1) feeding after 48 hours old, (2) feeding milk in some

form, (3) feeding an all-mash ration, (4) providing adequate hopper space. When visiting the members in the summer I checked them on the use of the above practices, both before and after the school. I selected the important approved practices under each job studied in the school and checked the members on the application of them. Next year I shall make a survey early in the school term to determine the initial practices of the members.

Deciding to Conduct an Evening School

This was my second evening school. My first attempted three years ago was not a decided success (because of poor methods).

For the following reasons I decided to conduct an evening school: (1) I wanted to widen the scope of my service, (2) to learn first-hand the farmers' problems, (3) to get closer contact with the adult farmer, (4) to cut the per capita cost of my department, (5) to advance in my profession.

Locating the School

In Missouri no extra compensation is given for evening school work. It is considered part of the all-day teacher's duty. This situation has the advantage that the farmers cannot accuse the teacher of wanting to make more money by putting on the evening school.

In deciding where to conduct the school I considered the following factors: (1) the need for improvement in farming, (2) the possibilities for improvement, (3) the distance from the all-day school, (4) facilities of the rural schools for night meetings, (5) possibilities of securing all-day students for my department, (6) interest of those to be served by the course, (7) possibilities of having good farmers assist me, (8) conditions of roads in the winter. I did not consider using my local school as a center for the meetings, because I knew from experience that farmers would not attend meetings in my high school, which is located in Neosho, a city of 5,000 population. Farmers like to meet in their natural community center.

Securing the Enrollment

In securing the enrollment I called upon the superintendent of Meeks Consolidated School, John Ferree. He introduced me to key farmers of the community, especially to those interested in poultry production. Two of these farmers called upon other farmers interested in poultry production and secured their signature to a paper, requesting that I conduct an evening school on poultry production and promising to attend every meeting possible. The paper was taken only to those interested in poultry production and who were over 21 years of age. No attempt was made to secure a large group and it was understood that the meetings would not be for entertainment, but for specific discussion and instruction. The three local papers carried stories about the proposed school and explained the purpose of it. Twenty-four men and women enrolled for the course. Others attended at times, but not 70 percent of the meetings, so they were not counted as members.

Selecting the Content of the Course

Poultry production was chosen for the following reasons: (1) It is a major enterprise in the community, (2) there was a need for improvement in the practices used and a possibility for improvement, (3) the key farmers agreed that the community would be interested in the enterprise, (4) as a teacher I was qualified from the standpoints of technical and professional training to conduct the school, (5) there was plenty of material available for use in conducting the school. The content of the course was selected by the farmers in this manner: I asked what problems they had in the poultry enterprise; one member said he wanted to know more about culling, another wanted to change his housing conditions, another wanted to know a good laying ration, someone was interested in securing better hens, one man asked where he could secure a good male breeder, and so on. I wrote the problems on the board as given. The class selected the ones they wanted to spend their time on. When we had fin-

FORM OF CHART USED IN RECORDING PRACTICES

Names of Members	Culling	Feeding Hens	Feeding Chicks, Etc.
Mrs. Emma Gorham	b. Did not cull	b. Fed grain only	b. Fed after 48 hours
			a. Fed before 48 hours
		a. Kept mash before	b. Fed no milk
	a. Culled by self		a. Fed milk
		b. Hoppers inadequate	b. Fed grain and mash
		a. Hoppers adequate	a. Fed all-mash
			b. Hoppers inadequate
			a. Hoppers adequate

ished we had the following content: culling, improving the housing, feeding the hens, selecting the female breeders, securing male breeders (I combined these on the chart and called them breeding), securing baby chicks, brooding chicks, feeding chicks, combating chick diseases, marketing broilers, growing the pullets. It is seen that the jobs were stated in common terms used by the farmer, and not in textbook terms. Incubation was omitted because the members agreed that it was not a problem with them.

Organizing the School

The class decided to meet once a week, for a period of 90 minutes, from 7:30 to 9 p. m. After I had pointed out some advantages of having the meetings on a seasonal sequence basis, it was decided to study the jobs a little in advance of the need for the knowledge. The dates for the meetings were then determined. The school started in October and closed in May. A total of eleven meetings were held. The first meeting should have been earlier in order to have taken care of culling when needed most, but we could not arrange it. Quite a bit of culling was done after the meeting covering the job of culling was held.

Conducting the School

The conference method of procedure was used where situations permitted, because all the members had raised chickens and most of them were fairly good poultrymen. The material was old to the group as a whole, but the problems were: to assemble experiences, select functioning facts, evaluate these facts, make decisions, work out plans, execute the plans, and check the results. Before going out to the meetings I made definite preparations for conducting the meetings, tho I seldom followed the procedure on my plans. Informal discussion was used and everybody was encouraged to participate. Experiences of a local poultryman and hatcheryman, R. W. Tener, was of great value to the school. Three or four good poultrymen attended the meetings regularly and contributed much to our success, in addition to gaining functioning knowledge. Materials for aid in teaching were plentiful. I used hens for practice culling; a \$100 White Leghorn cockerel and other cockerels in selecting male breeders; model houses; charts; blackboard drawings, diagrams, and figures.

Keeping Up the Interest

Interest in the school was maintained by studying real farm jobs (not pseudo jobs), thru newspaper stories, and by sending summaries of every job to each member. The summaries were made on a patented hectograph and were mailed to the members one day before the meeting time. One of the women saved her flock from coccidiosis by using the ration found in her summary sheet.

Reports Made

A record for attendance was kept on the form recommended by the Federal Board for Vocational Education in Monograph 9. The results of the school were reported in the form of improved practices put into operation by the members. In addition to a record of improved practices used I made a report to the state supervisor on uniform blanks provided for that purpose.

190 Farmers Improve 3,000 Acres

Teachers of Vocational Agriculture,
Knox County, Tennessee

SINCE improved practices are the final goals in evening school instruction, teachers of vocational agriculture should endeavor to enroll all farmers in at least some of the recommended practices. Of the 226 farmers enrolled in the five evening schools of Knox County, Tennessee, 190 are improving approximately three thousand acres of land as a result of the study. The following are the communities in which the classes were held, the names of the teachers, and the enrollment: Farragut community, A. L. Rubin, teacher, 55 farmers enrolled; Karns community, J. B. Kirkland, teacher, 50 farmers enrolled; Carter community, R. J. Sedberry, teacher, 44 farmers enrolled; and Gibbs community, W. H. Kennard, teacher, 29 farmers enrolled. This was the first year for the Gibbs community.

The classes met once each week for a period of 12 weeks. As a result of these meetings 615 individual improved practices are being carried out. One hundred twenty-five farmers are improving 935 acres by growing legumes for soil improvement for the first time. Seventy-eight farmers are applying lime to 785 acres. Weeds are being effectively controlled by 83 farmers on 782 acres of pasture by the use of lime or fertilizer, or by clipping. Proper care and distribution of manure is one of the methods by which 65 farmers are improving 673 acres.

The interest in evening schools in Knox County has grown very rapidly. The schools conducted during 1930-31 were the second series of their kind ever held in the county. While the enrollment the second year was only slightly greater than that of the first, the interest shown was much greater. The group that attended the second year was made up largely of the same farmers that enrolled the first year.

The conference method of teaching was used in the schools and proved very successful. The local teacher was in charge of his school during the entire course and led the discussion at each meeting. The interest and attendance was kept up by frequent personal visits to the farmer by the teacher. Experimental data was presented by charts from various experiment stations which were applicable to the farmers' problems. The farmers themselves were urged to give their experiences and take an active part in the discussions.

Frequent personal visits are made to

each farmer for the supervision of his improved practice program. Each practice for which the farmer is enrolled is checked by the teacher when completed. These visits have been found to be of much benefit in the evening schools. They also give the teacher an opportunity to encourage the fathers to help their sons in their supervised practice programs, because the fathers see the purpose of the work and become more sympathetic with the vocational program.

The success of the evening school program is due to:

1. Selling farmers on the idea of attending an evening school to discuss problems of practical value to them.
2. Using the conference method of teaching and encouraging the farmers to tell their experiences on the subject.
3. Using charts giving experimental data applicable to local conditions.
4. Getting the farmers to do improved practices growing out of each lesson that they may use on their own farm.
5. Supervising improved practices thruout the year.

Let Dad Ride

JOHN T. WHEELER,
Professor of Rural Education,
Athens, Georgia

THE regular school buses are being used in many communities in Georgia to transport farmers to evening class meetings. This practice was inaugurated by the trustees of the Bowersville Consolidated School in Hart County and has been successfully carried out in that school district for the past four years.

This idea has proven so successful in Hart County that in many places over the state local trustees have put the buses on the road for the transportation of adults to and from evening classes. These buses make the same routes for evening classes as for all-day pupils.

A member of the local board at Statham told me recently that the transportation of adults to evening classes had done much to create a new and vital community interest in the school and its problems of transportation. The direct results of transportation in the improvement of evening classes, as told by Mr. Lewis, the teacher at Statham, are: (1) better attendance; (2) more regular attendance; (3) keener interest; and, (4) a lengthening of the evening class courses.

"We have yet to find that transportation brings disinterested evening class members. Dad does not come just for the ride."



Evening class members coming to School in the regular school bus at Auburn, Georgia



Farm Mechanics



Suggestions on Farm Shop Management

CARL G. HOWARD, State Supervisor for Agricultural Education, Wyoming

THERE are at least fifty points which could be listed under the heading of Farm Shop Management. Six of these seem fundamental and important enough for discussion. They may be listed as follows:

1. The purchase of equipment and supplies.
2. The handling and distribution of supplies.
3. The care of equipment.
4. The accounting system in use.
5. The character of finished products.
6. The utilization of the shop by the community.

If good business practices are followed in the management principles underlying the six items listed above, the shop can justify its existence and at the same time account for all moneys spent and received.

It may be said without fear of contradiction that good tools and equipment should be provided for anyone who is to develop skill in any operation or set of operations. On a recent visit to one of the farm mechanics departments in the state, some cheap wood vises were inspected which had been in use for only five or six months. None of them were in usable condition while the boys were losing time waiting their turn at the one good machinist's vise which the shop possessed.

Teachers of vocational agriculture are urged to requisition all equipment, tools, and supplies for the farm shop in the spring of the year for delivery by August 15. There should appear on this requisition everything necessary for the efficient conduct of the shop for the coming year under normal conditions. Wherever possible the practice of asking for competitive bids is recommended, since this usually lowers the cost of most items materially. Trade names, accurate descriptions, and catalog numbers taken from standard catalogs must be an integral part of the requisition.

Where all supplies are handled by the school, their purchase in quantity on competitive bids allows them to be laid in to the farm shop at such prices that an addition of 10 to 15 percent may be made to care for loss, waste, and breakage and still sell them to students for slightly less than prevailing retail prices in the community.

Handling equipment and supplies is a detail as variable as to method as the individual shop teachers. In general a tool room is considered essential in all Wyoming farm shops.

Cupboards with good locks are essential in safeguarding small supplies. Nails, screws, bolts, buckles, rivets, and so forth, may be picked up at an alarming rate if not issued from locked cupboards in small quantities. This loss may not be at all intentional, but if

supplies are put in boys' pockets in the shop, there is no way in which excess issuance may be checked. Usually storage space which can be kept locked can be found for larger supplies, as lumber, iron, and so forth. Only a reasonably small quantity should be available in the open shop. This may appear very distrustful of human nature, but experience has proven it to be the only way to prevent loss of supplies and tools.

All equipment and supplies have value and must be strictly accounted for. The most satisfactory accounting system for the shop has an account with each major division of items purchased and disposed of. In opening a set of farm shop accounts inventories are copied on the debit side of equipment, tools, lumber, metal, leather, and harness, and miscellaneous. The totals from these several accounts are added and a credit entry made in the Cash and Capital Investment account. As materials are used in the shop the proper accounts are credited and debit entries made in the proper additional accounts, as follows: Jobs and Projects, Farmer Service, Publicity, Overhead, Pupils, Other Departments and Cash. No further explanation seems necessary here since all entries are made in a regular double entry ledger. Posting may be done at intervals and a trial balance should be taken monthly.

Data for use in posting the ledger is best secured where some sort of "Material Report Form" is used. This should have space for the boy's name, the name of the job, the number, size, and kinds of materials, their price, and the time used in completing the job. Every boy is issued a card for each new job started. Notations of materials and time are made by the boy as the job progresses from a list of prices posted by the teacher. Values are assigned to all materials used when the job is completed. This total together with the time total is checked by the instructor at the time he inspects and grades the finished product. Criticisms are made, mistakes pointed out, a grade given, and collection made from the boy before the job leaves the shop. There is no delay nor any cold storage. Everything is done while the job is hot. A receipt is issued to the boy, and the material report marked paid.

The finished product must have an immediate use and be relinquished to that use as soon as possible. Quality and workmanship should exceed the average farmer's standard to some extent.

The farm shop should be so located and equipped that farmers will drop in to use equipment, observe the boys, and ask for help. Sufficient reference material, a well equipped shop, and a

sympathetic teacher will insure that every farm shop is furnished and used by the community. This, with the points noted above, makes the shop an integral part of the community and eliminates any question as to its value.

We Build Our Own

W. H. HUBIN,
Vocational Agriculture Teacher,
Gilmanton, Wisconsin

THE farm mechanics class of the Gilmanton High School built a farm mechanics shop during the school year of 1929-30. The proposition was presented to the class for discussion and plans were drawn by the students.

The school had about 1,500 to 2,000 clay building tile on hand, so our problem was to use as much of the tile as we could. Another problem we wanted to overcome was the matter of having as few buildings on the school grounds as possible, so we decided to build the shop as an addition to a building which had previously been constructed. The shop was to be 24 x 30, which, when joined to the other building, would give us a floor space 24' x 42'.

The plans and estimated cost were submitted to the school board, where they were approved, and we were told to go ahead with the project. The footings were poured and the two side walls laid up in about three weeks, the class working only one and one-half hours a day. The boys received valuable experience in laying the tile walls. The roof was built on a truss plan, each rafter being well braced to help hold the side walls erect, and to give more rigidity and strength to the roof. Part of the class sawed out the rafters and braces and nailed them together while the other group laid up the walls. The rafters and part of the roof boards were in place by the time cold weather caused us to abandon our building project.

The work was again continued on April 1, and the building completed the latter part of May. With my help and instruction the boys did all the finishing and rough work, giving each boy an opportunity to learn, and to acquire some skill while doing each job. The front of the building was constructed of stud-dings and drop-siding. The interior is finished with a concrete floor and equipped with work benches along all sides, a total of 11 benches. The benches and vises were all made by the students. There were 14 boys in the class, which was really too large a group for the most efficient work and instruction. However, I feel that the boys received valuable training and information from this building project. The cost of materials was about \$500 net, including the tile for the sides and end wall, which were left on hand when the school was built in 1921.

Keep the Shop Neat

E. D. HOWELL,
Delavan, Illinois

REALIZING that a neat and well-equipped farm shop is an important step towards quick and efficient repairs on the farm, the boys in farm mechanics are required to gather up the tools on their place and arrange them in the farm shop according to their ideas. After this has been accomplished they are scored from month to month on the condition of the shops and tools according to a point system and the result averaged in with their monthly grade. This helps to gain one of the fundamental aims of farm mechanics, that of forming the habit of replacing tools in their proper place when thru with them. Since the score card allows for sharpening tools, adding new ones, and building devices such as benches, saw horses, and so forth, the boy is encouraged to improve the shop equipment as well as increase the range of repair jobs.

Negro Teacher Trainers Demonstrate Shop Methods

DR. H. O. SARGENT,
Special Agent for Negro Schools,
Federal Board for Vocational Education

NEGRO itinerant teacher trainers who go from one Negro vocational agriculture school to another showing teachers how to organize and operate their farm shop courses are demonstrating conclusively the effectiveness of this program. So impressed was the Rosenwald Foundation with the results of such work that for several years it has been providing funds to pay salaries of such itinerant teacher trainers in Louisiana, South Carolina, Georgia, Tennessee, and Mississippi, and also for the necessary equipment and tools.

To illustrate what can be done by the itinerant teacher trainers who serve teachers of Negro vocational agriculture schools, the Federal Board for Vocational Education points to the method used by one of the itinerants and to a specific instance of his instruction activities. This itinerant teacher trainer, W. W. Wilkins, gets around the country by means of a special truck in which he carries the tools he needs in giving instruction to teachers.

Let us follow Mr. Wilkins as he arrives at the Great Branch school near Orangeburg, South Carolina, and see how he proceeds. The first thing he did was to find out from the students what type of repair work they thought was needed at their homes. Next he drove out to some of the homes of those who seemed interested in doing repair work. At the home of a farmer who had two sons in the vocational agriculture school he found a number of repair and construction jobs. The farmer agreed to buy the lumber and other materials necessary for the jobs. Four distinct jobs were laid out—the construction of a new poultry house and a new tool shed, changing the location of the garden fences, and repairing a number of farm tools. Mr. Wilkins stayed long enough at the Great Branch School to make a drawing of the farm showing the exact location of the different farm shop repair jobs involved in the project as well as sketches and plans of the different buildings to be erected. Before he pushed on to the next vocational

agriculture school he left instructions with the Great Branch teacher of agriculture to get all the materials together for the job, and promised to return a little later and show the teacher how to start the farm shop students off on the work planned on the local farm.

And to see Mr. Wilkins organize and start the work on this farm when he returned was an eye opener. Before the actual work began he discussed it thoroughly with the agricultural teacher and the pupils of the Great Branch school. He used the sketches and plans he had drawn up originally to explain just how the work should proceed and what part of the work each student should undertake. While some of the 12 boys who aided in this job as a part of their farm shop work were tearing down the old garden fences and erecting new ones, another group was busy erecting a poultry house, and still another was repairing farm tools. The farmer on whose place the work was being carried out as well as his two sons were working with the teacher and the other boys, when the teacher trainer pulled out for another school, there to repeat what he had done at the Great Branch school.

Cost of Power Farming

THE agricultural engineering department of Iowa State College obtained the following data as a result of power farming 160 acres for two years. Crops were corn, wheat, barley, sweet clover, and alfalfa. No horse labor used.

Data were obtained by Professor E. M. Mervine, now with the United States Department of Agriculture.

Summary of Results

1. Two years of operation required a total of 2,735.93 man hours which is equivalent to 137 ten-hour days per year and represents less than one-half of one man's time for operating an Iowa 160-acre corn-grain farm.

2. Tractor hours, totaling 1,404.93 hours of service in two years or 70 days of 10-hour performance each year are much greater than customary, substantially reducing the hourly overhead cost.

3. With an assumed annual depreciation, interest, housing, and repair bill for the tractor of 186.38, the hourly overhead cost of the tractor was 26½ cents.

4. The total cost of tractor use was 62½ cents per hour, including 30½ cents for operating costs of fuel, oil, and so forth, 5½ cents for servicing and 26½ cents overhead.

5. Seventy-six and six-tenths percent of labor was used in producing and harvesting crops.

Nine percent of labor was used in general farm work, mowing weeds, cleaning tile lines, blasting stumps, and so forth.

Fourteen and four-tenths percent of labor was used in servicing tractor, preparing machinery, adjustments, repairs, and so forth.

6. Costs are divided as follows:

	For Entire Farm	For Corn Rais- ing and Harvesting
Rent	47.4%	39.7%
Labor	18.8	19.2
Seed, fertilizer, overhead, etc.	15.1	19.3
Power	13.4	15.6
Machinery ...	5.3	6.2
	100 %	100 %

School or Factory?

M. M. ROGERS,
Vocational Agriculture Teacher,
Lytton, Iowa

IBELIEVE that many instructors take too much for granted in farm shop. I am going to try to give a few suggestions which may help some instructors over a few of the bumps I have had to take in order to arrive at the place where I now am; and I realize that I still have a long way to go before my shop work will be up to the proper standard.

In the fall we start with rope work and teach how to buy good rope, how to whip the ends, the long splice, the square knot, the bowline knot, and the weaver's knot. The boys bring whatever work they have and we review all of this work in the spring as some of it is forgotten unless practiced again.

Soldering comes next and the boys from the agriculture class and shop bring blow torches sufficient to supply one for every two boys. We teach the size of coppers to buy, composition of solder, the type to buy, how to make a soldering flux, what tin is, what galvanized iron is, the gauges of galvanized iron, how to solder tin, black iron, granite, and galvanized iron, and how to sweat solder. A set of exercises in soldering is given to each boy which consists of sweat soldering a piece of tin and galvanized iron, followed with sweat soldering a piece of black iron to these and soldering some holes and a patch. The boys are then ready to solder articles which are brought from home.

Glazing is taken up next and each boy is required to learn how glass is made, the different strengths of glass, what plate glass is, how to measure glass for a window, how to cut glass, how to sharpen a glass cutter, and how to mix and apply putty. The boys bring windows for this work and we generally go into the country and repair the windows in one house or other buildings.

Tools and woodwork are taken in turn. Each boy is required to learn how to tell the size of bits, how to measure with a ruler and square (too many pupils get thru farm shop without knowing this), how to set a plane, how to tell the difference between a cross-cut and rip saw, how to hold a hammer, a saw, and a plane, how to put nails in a board, the different sizes and kinds of nails (the same is taught for screws), how to figure lumber, how to write a lumber bill, and the different kinds and grades of lumber. Tool sharpening is taught as needed. Drawing is taken up along with woodwork, as it teaches boys how to read blueprints and how to show by pictures plans which they have in mind.

I could go on with the other units, harness, gas engines, cement, cold metal, and so forth, and take each one up, but I believe I have given enough to show you that we do not take anything for granted. We use one reference book for each two boys. They are assigned readings in this and are given written work over each unit. This I believe to be very valuable in finding teaching weak spots.

Above all, demonstrate—demonstrate as you give the work, insist on good workmanship, stay on one unit until it is mastered. Do not judge your work by the quantity but by the quality. Remember your shop is a "teaching shop" and not a factory for seeing how much work you can turn out.



Transfer of Training in Vocational Agriculture

CARSIE HAMMONDS, University of Kentucky

TRAINING in one situation may transfer or carry over to another situation. "Training in one farm enterprise may prove helpful in another farm enterprise; training in one farm job may contribute to ability in another farm job." If these statements are not true, agricultural education is a hopeless task.

For some years, transfer of training has had a bad reputation because of its associations. It has been associated with faculty psychology and formal discipline or mental discipline. The doctrine of formal discipline, which accompanies faculty psychology, was an explanation of how transfer takes place—the faculty or general power once developed functioned equally well in all situations. The job of the teacher was to see that the faculties—observation, memory reasoning, and so forth—were developed.

In the death of faculty psychology the doctrine of formal discipline lost its prop. (Both are officially but not actually dead.) Teachers had to educate a different kind of mind. Because the doctrine of formal discipline was an explanation of how transfer takes place, many people concluded that to reject formal discipline was to reject transfer of training. These people will have nothing to do with transfer of training. They cannot see that they may reject formal discipline and hold on to transfer of training. Because we have lost our faculties we must not necessarily conclude that we have to give up transfer of training.

Two general theories are now advanced as explanation of how transfer takes place:

1. The theory of *identical elements* proposed by Thorndike.
2. The theory of *generalization* proposed by Judd.

Those who explain transfer of training by the theory of identical elements say that where there is spread or transfer of training it is due to some element of identity, such as identity of material, identity of procedure, or identity of aim or purpose. For illustration: The chemical elements in a carbohydrate for feeding hogs are the same as in a carbohydrate for feeding beef cattle. They say that if a boy learns the composition of a carbohydrate in studying feeding of hogs this fact (material) may transfer to the feeding of beef cattle. Identical procedures or identical aims may transfer similarly. It seems plausible that there must be identity of elements in order that transfer may take place. It does not follow, however, that identical elements always transfer. They *do not* always transfer. A boy may know a fact in one situation and not be able to recognize that same fact in another situation.

Here the theory of generalization

makes its contribution. According to this theory, transfer is a form of generalization; in order for transfer to take place, the thing to be transferred must be generalized. Unless generalization takes place, the identical element may never be perceived in the new situation. For illustration: In teaching the feeding of hogs, the boy may learn that young growing hogs need a larger proportion of protein than mature hogs. The boy may associate this fact, however, only with the feeding of hogs. The fact has not been generalized. It sticks to hogs, but does not transfer to beef cattle. The old meaning is not recognized in a new situation. When the element has been generalized, the boy is able to perceive it in new situations which contain it. In order to generalize, it is usually necessary that more than one association be made at the time of learning. Contacts, connections, relations, cues must be established.

The writer feels that there should be no quarrel between the two theories in explaining how transfer takes place. Each theory helps the other. There must be identity of elements and these elements must be generalized before we can hope for transfer.

Any transfer there may be is of tremendous importance in education. It seems clear that there is no basis for expecting that transfer will take place of itself. The important question for the teacher is not whether there is such a thing as transfer, but how the greatest amount of helpful transfer may be secured.

In order that we may think on the amount of possible transfer from one farm job to another, let us consider the jobs of feeding hogs and feeding beef cattle. Let us assume that the job of feeding hogs is taught first and that the pupils are first-year pupils, having studied no feeding job previously.

Partial List of Possible Elements of Transfer From Feeding Hogs to Feeding Beef Cattle

1. Nature of protein—what made up of—CHON. Its use in body of meat-producing animal. That there are different kinds of protein.
2. Nature of carbohydrate—what made up of—CHO. Its use in body of meat-producing animal.
3. Fat—what made up of—CHO. Its use in body of meat-producing animal.
4. Carbohydrates and fat compared as to feed value. Reason why fat is $2\frac{1}{4}$ times as efficient as carbohydrate.
5. Function of balance—meaning of nutritive ratio—wide, narrow.
6. The necessity for larger proportion of protein in young growing animal than in mature animal.
7. Mechanics of working nutritive ratio: Pointing off decimal; how to

widen or narrow a ration; use of feed tables and standards.

8. How and why gain in weight can come only from feed over and above a maintenance ration—how twice the feed may produce six times the gain per unit fed.

9. Notion that there is science back of feeding.

10. Notion of value of experimental results.

11. Necessity for studying factors that enter into feeding experiment.

12. That protein is the most costly nutrient. Necessity of conserving protein.

13. That legumes are rich in protein.

14. That cottonseed meal is rich in protein—also bran, linseed meal.

15. That linseed meal has a laxative effect.

16. That feed cost is not the only cost of producing animals.

17. That young animals gain more per pound of feed than older animals.

18. That animals approaching high finish gain less per pound of feed.

19. Attitude that something worthwhile (or the reverse) will be learned in studying a feeding job.

20. Approximate composition of corn—notion that it has wide nutritive ratio.

21. General concept of vitamins.

22. Method of approaching the problems in feeding.

23. Meaning of terms—nutrient, ration, concentrate, maintenance ration, ash.

24. Use of minerals in body—meaning of minerals.

25. That feed bought equals initial cost plus getting to farm. That feed sold equals price received minus delivery cost. Thus, one advantage of homegrown feed.

26. How interpret a feed tag.

27. Manurial value of feeds. How save manurial value.

28. Yellow corn greater feeding value than white corn.

29. Any change of feed should be made gradually.

30. That home-produced feeds cost.

Implications for Teachers

1. Don't expect transfer to take place of itself—identical elements do not always transfer.

2. Do not expect a fact, or anything else, to function without regard to the way in which it is acquired.

3. Consider the situation that life will present. See that material and method are as nearly as possible like those needed in life situations.

4. Strive for generalization. The pupil must see relationships, must make many contacts with the material to be learned; the material must have ramifications.

5. What is not acquired cannot be transferred.

6. The amount of transfer is not the same with all people. As a rule, the less "intellectual" the pupil the less transfer. The less "intellectual" pupils do not generalize so readily.

7. Do not expect too much transfer. However, even a small amount of transfer may be of great value if it extends over a wide field.

8. The undesirable may transfer as well as the desirable.

9. If teachers expect an element to transfer it is their job to make the element prepotent, make it stand out; the element must not be covered up with irrelevant detail.

10. If much generalization is to be secured, we must take the necessary time to develop proper concepts. Considerable time will be required to teach the hog-feeding job so that the elements in the list will transfer with a large part of the pupils.

Research and the Teacher

(Continued from page 98)

gator he is interested in good research. More research is being done by instructors of agriculture than by teacher-training and supervisory staffs combined. His work demands the use consciously or unconsciously of techniques common to research. Many are doing graduate work and therefore interested. And finally it is difficult to conceive of research or interest in research ceasing at the instance of a graduate degree and this group is particularly concerned. Therefore the research section should be interesting to every reader of this magazine.

Fourth, respect for vocational agriculture will be increased on the part of the other branches of education, those responsible for public education and the laymen. Facts win a respectful hearing where personal opinion and philosophy alone "availeth little." The writer has frequently felt that factual data existed on some problem in vocational agriculture but these facts were not at his command. These columns should furnish you something to meet this need.

POLICIES IN THE MAKING

There are difficulties in store for this department. The research and investigations must be located and then copies secured showing not only the results but the scope of the studies and procedure followed. Those selected must be of value and interest to all readers. Many of the studies and the results will not lend themselves to brief lucid presentation. For the present then the editors of this department suggest the following:

1. Instructors, teacher-trainers, and supervisors will be expected to inform the editors of research done by themselves or others which may prove of value.

2. Research of direct value to the instructor of agriculture will be favored.

3. While the field of vocational agriculture will be favored, occasionally results of research in general education and psychology may be presented when there is important application to be made to vocational agriculture.

Now, please, send to the editors your suggestions, criticisms, and information as to where good research exists. They are already experiencing some difficulty in locating and securing copy.—E. C. Magill, Blacksburg, Virginia.

Writing and Planning the Interest Approach

R. H. PALMER,
Professor of Agricultural Education,
Montana State College,
Bozeman, Montana

IN TEACHING vocational agriculture, interests, ideals, and standards of accomplishment are of much importance. Every vocational teacher knows many farmers who are not doing nearly as good a job as they know how to do. The lack of ideals or the absence of high standards is usually the reason. Farmers do not as a rule do any better job than they set out to do. In training young farmers for efficiency, it is necessary to give them the ideal of doing the job better, and to have them determine *just how well* they will attempt to do it.

In order to make our teaching most effective, we should at the outset, before beginning the study of subject matter, make certain that we have created a powerful urge for our students to acquire the new abilities we wish to teach. The *interest-approach* is the means of creating this urge.

An interest-approach has five purposes, as follows:

1. To draw interest from outside sources.
2. To show relationships to other subjects studied.
3. To point out the use of the new abilities.
4. To set up high ideals and standards.
5. To lead naturally into the study of content.

This need not be a long nor a complicated process. With these purposes in mind, the planning and discussion will be simple and effective.

To illustrate how we may plan to do this, an example is given here of an interest approach to the unit on potato culture which was taught to a class in farm crops in a Montana vocational agriculture department. The discussion and assignment required about thirty minutes. While the teacher answered some of the questions himself, the students contributed freely to the discussion and entered upon the assignment with a high degree of interest, and with the ideal of becoming able to produce high yields of good quality potatoes.

The teacher opened the discussion as follows:

"I read the other day about a strange vine that was grown by a scientist in his laboratory. It had tomatoes growing at the tops, and had potatoes growing on the roots. How could this be possible?"

(Bringing out the fact that both vegetables belong to the Nightshade family and can be grafted, altho with difficulty; and arousing curiosity and wonder.)

"Why is it that we call potatoes 'Irish'?"

(Bringing out interesting facts about their history, adaptation, and importance for food; arousing sympathy and giving an idea of the value of the crop as human food.)

"Here in Blanktown, grocers tell me that people usually want to buy potatoes imported from other states because they are better quality than those grown locally. Do you think local farmers could produce as good potatoes as imported ones at a profit?"

(Bringing out the need for knowledge

about the production of high quality, marketable potatoes; arousing the motive of gain.)

"A group of boys up at Bear Cap obtained a yield of 240 bushels per acre of U. S. No. 1 potatoes from a class project last year, and were able to market them at the same price paid for the imported product. How do you suppose they got such a high yield of potatoes?"

(Bringing out the principles which they must have followed, in producing and marketing high quality products; setting up the worthwhile abilities which the students can gain from the study of this crop.)

"If you were planning a potato project at home this spring, with what yield of marketable potatoes, and with what return per acre over expenses, would you be satisfied?"

(Bringing out the possibilities of profit, and setting up high ideals of accomplishment.)

"If you could become as good a producer of potatoes as this, what would it be worth to you in the first 10 years you were farming?"

(Bringing out the use and value they might make of the ability.)

"You have decided that one of the most important things in getting a high return from potatoes is to raise a kind that housewives will want to buy. Here are three lots of potatoes offered for sale at local stores at the same price per bushel. In what order do you think housewives would prefer them for table use? Give reasons for your answers. Consult any of the suggested references for points which are not clear to you.

(Leading into study of the subject itself. The problem is to bring out the characteristics of good market potatoes.)

The above illustration could be improved upon by many vocational instructors. It illustrates, however, how the five purposes of the interest approach may be attained. Following such an introduction, interest in the subject could be expected to be sustained, for the boys know exactly what value the study has for them, since they have decided upon the standard they will try to achieve and have determined in general what problems they must tackle in order to gain it.

Utah Presents Medals to 10-Year Service Men

The Utah vocational agriculture teachers at their annual meeting in October presented 10-year service men in agriculture with appropriately designed gold medals in recognition of the valuable service which has been given to the training of farmers. The men receiving these medals were: Mr. J. W. Kirkbride, Mr. H. P. Anderson, Mr. Sumner Hatch, Mr. Charles H. Davis, Mr. Joseph F. Swinner, and Mr. Harry Beagley.

Carpentry Mathematics, Part I, McGraw-Hill Book Company, by J. D. Wilson and Clell M. Rogers, price \$1.80. Designed primarily for teachers of trade courses, this book is of value to vocational agricultural teachers in presenting the farm carpentry phase of their farm shop work. The subject matter is well organized, illustrations carefully chosen, and the book is written on a plane understandable in high school levels.—A. P. D.



Professional



Working Toward an Ideal in California

GEORGE COUPER, Bureau of Agricultural Education, San Luis Obispo, California

CALIFORNIA has moved a step nearer to the ideal in vocational education this year by setting up an agricultural education program of extreme practicability—a program of which other states have felt the need but in which this western commonwealth has been the first to bring to a definite beginning.

The step is not being taken without careful deliberation. It is putting into effect the results of years of study to find that ideal. It is the creation growing out of recommendations made four years ago, when a group of the state's educational and agricultural leaders made a thoro analysis of the facts as they found them.

It embodies, in brief, setting up at an existing school plant and with little additional expense, a secondary vocational agricultural school, of terminal character, for the education of boys of the state in the industry which is the backbone of California—agriculture. The courses are administered by the state bureau of agricultural education.

Existence of the California Polytechnic School at San Luis Obispo, in the central part of the state, with adequate farm acreage, well-established herds and flocks, and sufficient buildings, made possible the set-up of the vocational agricultural education program thru the agricultural department of the school already established.

The program went into effect this fall, after several years of planning. Thru the use of co-operative school funds, and with the approval and interest of the federal board for vocational education which administers the Smith-Hughes allotments, it was unnecessary for any increased state appropriation for the work.

The set-up, too, is designed not only to provide a long-felt need in agricultural education, but to serve the rest of the vocational agricultural departments in high schools thruout the state, by providing at the centralized plant a corps of agricultural experts who are able not only to teach and supervise agricultural teacher-training courses at the school itself, but give aid and advice to the 150 high school vocational agricultural departments thruout the state.

Quoting from the announcement of the establishment of this unusual public school plan:

"The agricultural courses are designed for those who wish to train for some special agricultural activity and only students with vocational agricultural objectives will be admitted. Students must be at least 16 years of age or must have completed the equivalent of the sophomore work in high school. High school graduates will receive special attention.

"The work offered is on a definite

vocational basis, with a maximum participation in agricultural activities. All agricultural curricula are of a terminal character and none of them are for the purpose of qualifying for admission to degree-granting institutions . . ."

Students may, however, devote half-time to vocational agriculture and have available courses to meet high school graduation requirements or non-vocational courses of junior college grade in preparation for advanced work in degree-granting institutions, according to the announcement.

The state department of education has put the plan into effect, after many months of careful planning by Julian A. McPhee, chief of the bureau of agricultural education for the state of California and the administrative officer directly responsible for the 150 high school vocational agricultural departments of the state.

"Permanent farm relief can be obtained only thru agricultural education," declares McPhee, in stressing the practicability of the program which has been started.

Practicability, then, is the keynote of the plan which has been put into effect. Boys who enter the school come into the work with a definite objective. Perhaps they desire to enter the field of beef cattle production. At the school they are not only given an opportunity, but are urged, to begin a beef cattle project on a basis proportionate to their ability to carry it thru.

Loan funds are available thru a revolving fund. The boy may purchase one, two, or half a dozen purebred or grade calves of a recognized beef breed. He must keep accurate records of feeding, weigh his animals at regular intervals to check on development, and take entire care of his project, including complete cost accounting.

While he is gaining practical experience in handling his own animals, experts in agricultural education are his teachers. He is learning not only thru the results of his project, but thru daily counsel on every phase of the business of raising beef cattle on a profitable scale.

"What California needs is not more farmers, but better trained farmers," McPhee declares. "Those who can economically produce, judiciously market, and constantly co-operate will succeed."

The program has not been in effect long enough to gauge its ultimate success, but there are plenty of concrete examples of successful operation of projects under the previous operation of the school's agricultural department to predict increased efficiency under the expanded program.

Boys taking agricultural training at this school are finding a well-established demand for trained men in agricultural

pursuits. An optimistic call is found for herdsmen, cow testers, practical poultrymen, and others, while those who complete their courses on this strictly vocational plan have adequate preparation for entering the agricultural field themselves.

The value to the state cannot be measured in dollars and cents. Boys are being taught the value of high-production dairy cattle, best types of beef cattle, tested breeds of poultry. They are going back into the agricultural field to produce that for which there is the greatest demand—high-quality output. Agricultural leaders in every community who have studied the farm problem and found its weaknesses are quick to laud any program which teaches the farmer to get the greatest value from his endeavor and to strive for quality rather than quantity.

This set-up does not conflict in any way with any existing educational medium. Less than a quarter of the high schools in the state are giving agricultural courses, and the program at San Luis Obispo is designed to provide an educational outlet to boys from the other three-quarters of the state, as well as to supplement and appreciate the value of the work of schools already teaching vocational agriculture. Stressing terminal courses of a vocational nature and of less than college scope, the school does not encroach on the existing agricultural college branch of the state university.

California has been fortunate in having an existing institution, in operation since 1903, for the establishment of this long-desired educational program, accomplished without the need of legislative action thru existing funds. In other states, some like existing plant might be put to use.

The program is being watched with interest. Federal education and agricultural department officials are following the plan closely, with offers to co-operate in an advisory capacity at any time.

"The vocational agricultural education program of the state of California is filling a long-felt want," McPhee declares. "Success in this program may furnish proof that we are approaching the ideal in the field. Basically, the plan is sound."

Project work is stressed, and its achievements are legion. Carloads of fat steers fed by students at this vocational school won second prizes in two breeds in open competition at the state fair this fall, competing against carload entries from all over the western area.

Boys competing in the junior division against other students taking high school vocational agriculture took four championships. One student had a barrow championship and another reserve champion in a swine breed.

Why Stock Judging, and if so, How?

H. E. GHOLSON,
Clarksville, Tennessee

WHEN you were a student in college you no doubt spent many two-hour periods weighing the comparative merits of four hogs or four steers and trying to concoct plausible reasons for your final guess that the instructor would place them 3-4-1-2. Occasionally some enterprising individual would ferret out the fact that Kennedy placed them so-and-so yesterday or Bill put No. 4 up last period, which information was considered interesting but not very important, for Ferrin or Wentworth would probably have notions of their own. You noticed, in a casual sort of way, that the instructors agreed with each other little better than they did with you. In fact, Kennedy had the same four market sheep with two classes of students and placed them one way the first time and exactly opposite the second, much to the indignation of those who had buddies from whom they got the first placings.

Dr. Sherman Dickinson, Editor,
Columbia, Missouri.

I notice in the November issue of **AGRICULTURAL EDUCATION** a call is made for teacher contributions.

If you really want to stimulate a lot of stuff from teachers just print something that most of them will disagree with, not just "How I Put It Over," and other mild brags; the reaction of the reader being "I'll bet most of that is a lie; I believe I'll write one some time," and never getting around to it. They seldom miss a chance to argue, tho.

I enclose some material which, tho largely hokey, will bring in more answers and refutations than you have room to print. The tone is entirely foreign to that of your paper and if you think it will serve best in the waste basket, my feelings will not be wounded in the least.

Sincerely,
H. E. GHOLSON.

Now this is all right for college, tho I nearly got myself flunked one time for saying that the A. H. course seemed to prepare for the International Stock Show rather than for farming, but can vocational teachers justify such methods? Should we spend an afternoon on four hogs, often litter-mates, splitting hairs over this one's dew claws or that

one's drooping ears when on the market the classer would take one glance and call them all "top butchers" worth exactly the same? May I be forgiven for it, but I have done that very thing. I have taken four dairy cows and discoursed learnedly to a class on the merits of this and the faults of that one, to the secret (praise be) amusement of the owner, who would later tell me that Old Droop-horn might be a poor cow but she sure did spout out the milk and butterfat.

I may be a much worse stock judge than most people but as I remember it, the judges at a National Dairy Show were asked to examine 10 cows and rank them on indications of production only. Their placing corresponded with the records of the cows about as well as if the numbers had been drawn from a hat. What chance has a dub got if the experts have this luck?

I had an embarrassing thing come up years ago, pretty soon after I started teaching. We were beginning the study of poultry and, as was orthodox then, had taken some time for the score card. Everything was peaceful the first day but on the next some kill-joy burst out with "Say, did you know that over half the value of a chicken is in his feathers." He had done some arithmetic with the scale of points and ruined poultry judging.

What are we trying to do? Teach the boy to tell a good animal from a poor one, or to pick out minute differences between several good ones? The latter, apparently. I visited a class of teachers taking stock judging in summer school a year or so ago and saw the same old thing: four sheep that would bring the same price on the market and within a dollar or so of it at a purebred sale if their breeding was similar. The teachers made the same wild guesses that they did ten or twenty years before as students and the instructor did about the same, none agreeing any better.

We may be fooling ourselves but we are not fooling the boys, I have heard them talk before the contests, "He likes 'em fat," "Don't forget, now, if so-and-so judges, always put the pretty cow over the good milker," and so on. They know that differences in judges are more important than differences in the animals.

I wrote the paragraph above by mistake, I did not mean to say anything

about judging teams. They are important for advertising and keeping up the morale, like basketball and football teams, and are worth just about as much to a farmer.

A. A. A. T. Meets

THE American Association for the Advancement of Agricultural Teaching met at the Stevens Hotel, Chicago, on Monday afternoon, November 16. Dean H. W. Nisonger of Ohio State University, president of the association, presided.

Dr. R. M. Stewart of Cornell University presented a paper entitled, "What Criteria Should Be Used in Selecting Trainees for Vocational Agriculture Teaching?" The paper was discussed by H. B. Swanson, specialist in teacher-training, Federal Board.

Professor H. M. Hamlin of Iowa State College discussed the sectioning of agricultural freshmen. Dr. H. F. Cotterman of the University of Maryland commented on his discussion.

Professor H. B. Allen of the University of West Virginia was elected president. Professor H. M. Hamlin of Iowa State College was elected vice-president. Dr. E. H. Shinn of the United States Department of Agriculture was continued as secretary-treasurer.

OUR FRIEND PASSES ON

Senator Hoke Smith of Georgia, one of the sponsors of the Smith-Hughes bill of 1917, passed away on November 27 last at his home in Georgia.

All those engaged in Agricultural Education or benefiting in any way from the Vocational Education Act, will ever remember the service of Senator Smith and his associate of the House.

We Apologize

In the November issue of *Agricultural Education* we published an article written by Frate Bull, district supervisor, Jackson, Tennessee. We also used a picture of Mr. Bull in connection with the article.

Unfortunately, and in some fashion unknown to the editor, liberties were taken with Mr. Bull's given name and it appeared as Arata. Now Mr. Bull tells us that the article we printed and the picture we used are his all right, but that his first name is Frate and he hasn't given permission to have it changed.

We apologize therefore to Mr. Bull, and at the same time take advantage of this opportunity to suggest that you read his contribution if you have not already done so.

A. V. A. Convention

INASMUCH as the January issue of *Agricultural Education* must be "made up" early in December, it is impossible to include in it a report of the New York meeting of the A. V. A.

We hope, however, to make such a report in the February issue. In this connection, it should be understood by our readers that the A. V. A. News Bulletin is given the privilege of selecting for its exclusive use, such items or papers from the convention as it may desire to publish. If there are additional items which we deem of interest to our readers, we will print them.



Trailer built by Farm Shop Class at Pierce City, Missouri. It holds 16 boys comfortably and has storage space below. Darrell Young, the teacher, finds it convenient for field trips as well as for longer journeys



Future Farmers of America



Texas F. F. A. Has Prosperous Year

G. WHITLEY, Editor, Future Farmer News, Austin, Texas

COMING in school buses or riding all night in cotton trucks, 1,476 members of the Texas Association of Future Farmers of America journeyed to Dallas for their annual meeting at the State Fair, October 24-25. All the boys were admitted to the fair grounds as guests of the fair association and more than 500 delegates and other representatives were furnished free beds and meals by that association.

S. M. N. Marrs, State Superintendent of Public Instruction, and Frank P. Holland, editor of Farm and Ranch, addressed the boys at their Saturday evening meeting which was the chief gathering for the group. These speakers pointed out the advantages of vocational agriculture in teaching boys how to adapt methods of farming to their particular sections of the country and the importance of raising livestock on the farm.

At the election of officers for the new year the following leaders were chosen: Odelle Nevills, Abilene, winner of second place in the poultry judging contests at St. Louis in October, president; J. R. Bertrand, White Deer, vice-president; James Matthews, Cisco, secretary; Walter Scott of Kemp, treasurer; Wesley Carroll, Dilley, reporter; Steve Jozwiak, Taylor, parliamentarian; T. K. Morris, Itasca, band master; J. B. Rutland, Austin, State Adviser; Miss Gladys Whitley, Austin, editor, Future Farmer News; and Miller Rhoades, Taylor, retiring president; Carl Neeley, Decatur; and Vannoy Stewart, Mt. Pleasant, executive committee.

Eleven boys in the state who had maintained outstanding records in project work and scholarship were raised to the degree of Lone Star Farmers. They are: Wesley Carroll, Dilley; James Matthews, Cisco; Walter Scott, Stubbs School at Kemp; Odelle Nevills, Abilene; Henry Dusek, Taylor; Alvis Jones, Rising Star; Steve Jozwiak, Taylor; Platt Roach, Rising Star; Robert Spreen, Taylor; Bobby Thurman, Cisco; and Aubrey Holt, Cisco.

Hopes are high for a 150-piece Future Farmer Band in Texas, according to Mr. Morris, the band master. Organization of the band was perfected at the Dallas meeting and officers elected. These officers are: Charles Manley, Abilene, president; Lewis Halsey, Riesel, vice-president; Woodrow Meier, Mt. Pleasant, secretary-treasurer; and Glenn Winebrenner, Sherman, reporter.

The secretary's report showed that during the year 1930-31 the Texas Association of Future Farmers grew from 108 chapters to 176. The group set

as its standard a chapter in every school in which there is a department of vocational agriculture. Thus, there is a possibility of having 234 chapters during 1931-32.

Total membership for the last year was 3,980—almost 4,000. The group aims to have 6,000 this year.

Co-operative buying and selling were profitable to the chapters during the past year. Two hundred sixteen members bought seed co-operatively to the amount of \$3,294.85; 38, fertilizer for \$815.40; 100, feed for \$3,303.26; and 83 miscellaneous products for \$1,391.90. Twelve members sold dairy products co-operatively for \$1,500; 37, baby beeves for \$2,906.04; 16, market hogs for \$1,020.

In the division of educational trips and tours, we find 44 chapters reporting that 239 boys attended the Dallas Fair; 13 chapters sending 77 boys to the Waco Cotton Palace; 34 chapters sending 221 boys to the Fort Worth Stock Show; 49 chapters sending 363 delegates to county fair; and 26 chapters sending 95 boys on farm tours.

Social activities reported by the Texas chapters are father and son banquets, fishing trips, weiner roasts, agricultural plays, parties with the home economics classes, carnivals to raise money, encampments, and barbecues.

The boys took a lively interest in fairs and exhibits as indicated in 30 reports of preparing exhibits for community fairs, 37 exhibits for county fairs, 10 for the Cotton Palace, 4 for the Dallas Fair, 27 for other fairs. Thirty-five chapters prepared instruction booths and 24 organized community fairs.

Three hundred eighty-six members used purebred livestock for projects and 315 used standard bred poultry for projects. Three hundred forty-seven flocks of farm poultry, numbering 6,955 fowls, were culled, and 10 cow testing associations were organized and conducted.

Improving plants was another activity of Texas Future Farmers. Members using purebred planting seed numbered 607. Nine chapters helped organize

variety cotton associations. Future Farmers set 16,393 buds and made 923 grafts on trees in their communities. Six chapters organized purebred seed associations.

In savings accounts and investments, Texas Future Farmers reported \$9,910. Fifty-nine chapters improved their school grounds and 31 beautified their home yards. Terracing reported amounted to 27,500 acres.

Stewart Writes Booklet for Future Farmers

"HELPS in Mastering Parliamentary Procedure" is the title of a pamphlet recently written by Dr. W. F. Stewart, professor of agricultural education at Ohio State University, Columbus.

The booklet is pocket size, stapled into a flexible paper cover, and contains 24 pages. It may be purchased from the author at the following rates:

Single copies, 15 cents; 40 to 500 at \$10 per hundred; 500 copies at \$9 per hundred; 1,500 copies at \$7.50 per hundred; 3,000 copies at \$6 per hundred. All orders are cash. All shipments will be prepaid.

The book is dedicated to the Future Farmers of America and the foreword explains its content and purpose as follows: "This booklet is a compilation of elementary information concerning 10 of the more frequently used procedures in directing parliamentary business. It consists of an arrangement, somewhat in graded sequence, of the required abilities, together with the information helpful in understanding them, suggestions for securing practice in acquiring the mastery of each, and questions suggestive of appropriate tests."

There is no question but that every Future Farmer chapter should provide itself with several copies of the booklet and not only use it as a guide to proper procedure in meetings, but make a definite study of it so that each member will be familiar with proper practices in conducting or participating in formal meetings.—S. D.



Texas F.F.A. Delegates at 1931 Annual State Meeting

Wilbert Choi Reports for Honolulu Star

WILBERT CHOI, the F. F. A. delegate who traveled 4,200 miles from Hawaii to Kansas City, acted as correspondent for The Honolulu Star and sent several stories home. Here is a part of one letter which will be of interest to readers of *Agricultural Education*:

Kansas City, Missouri,
November 16, 1931.

We left La Grande, Oregon, Friday morning after brief visits with Imbler and Union Future Farmers.

We stopped at Denver, Saturday for about three hours and enjoyed strolling about the city and the various civic buildings such as the Capitol, museum, and library. Denver is a very nice city and I took more than my usual interest of this city because one of my past and very best teachers, Miss M. Head, came from this city.

I arrived in Kansas City, Sunday morning and am now staying at the Baltimore Hotel.

Kansas City is an awfully big place with lots of cars, tall buildings, and very many people. There are so many people on the streets that I always feel there must be something going on for it always reminds me of after a football game at our stadium when everybody is just tearing around to get home.

The tall buildings always attract my attention and altho I try my very best not to show that I'm from the country my curiosity always gets the best of me and whenever I see a building quite tall I always stop and stare at the top and count the number of floors. In standing on the street I always feel that I am at the bottom of a very deep canyon.

The Future Farmers Conference is going over very big. There are a little over 2,000 delegates and stock judges present from nearly every state of the Union. Yesterday at the cafe I had lunch with boys from Oklahoma, Louisiana, Missouri, and Nebraska. I meet daily boys from different states and I have learned more today about farming in such states than I would by reading books for a school year.

Even if the Future Farmers Convention was a flop and did not put over a single business deal I feel that it has been successful because of this fact that it has gotten the boys together for better social understandings and being educational in such a pleasant way. Some boys even thought that our girls still wore grass skirts and that we didn't have to work.

I feel that the Future Farmers organization will in the next two years be second to no other organization in this type of work. It will have, I know, a larger membership than even the Y. M. C. A.

Guy E. James, state supervisor for Missouri, was kept extremely busy on the job of forming a motion picture record of the events of the convention and congress.

A reel will be available soon from national headquarters giving the complete story of the 1931 meeting from the arrival of the boys to their departure.

Walter Barton, Los Molinos high school Future Farmer, harvested three acres of baby limas this year as part of his school project work.

Beaver Dam, Wisconsin, Farm Boys Run Newspaper

FARMERS and city folk in the vicinity of Beaver Dam were at first skeptical about the new agricultural course put into their high school in the fall of 1927. They continued to be so until the members of the Future Farmer Chapter took it upon themselves to see to it that people were informed of the department's activities. Since 1928 not a week has gone by during the school year without the publication of the Saturday issue of the "Future Farmer Citizen," a section in a local daily newspaper.

During the past semester a 14-year-old Future Farmer has been editor. He has the encouragement and counsel of his agricultural instructor, L. R. Larson, but Mr. Larson has often remarked that many issues of the Future Farmer Citizen are not seen by him until he reads them in the local daily. All of the writing for the paper is done voluntarily after a weekly meeting of the newspaper staff has determined the articles to be written. Two senior girls from the commercial department type the copy each week.

To Editors Helfert and Parker of The Beaver Dam Daily Citizen must go much credit for their fine co-operative spirit in helping work out and carry on the "Future Farmer Citizen." They have assisted in working out a regular day for publication, Saturday, and providing the electrotypes and a definite standard heading for all issues.

The size of the "Future Farmer Citizen" varies. It is usually three columns wide and about twelve to sixteen inches in length. Occasionally it covers over half the newspaper page and one issue, that of June 6, 1931, covered more than a page. The content usually includes an editorial, a "Rural Notice" section, and one or more articles dealing with local farm news and events, reports of local agricultural experiments and experiences, important features connected with the high school agricultural classes, project work of the vocational agriculture boys, and 4-H Club news.

The paper is critically read by agriculturally minded people around Beaver Dam and this means, then, that the patrons of the school have a better idea than formerly of what their local agricultural department is accomplishing. As for the boys who write the paper, ask them if they are not getting something out of their newspaper experience. Don't be surprised if they say, "Don't bother us now, we've got to get the paper out for Saturday."

Snyder Wins Showmanship

A NEW feature of the vocational contests was instituted this year in the form of a Showmanship Contest.

Team alternates have an opportunity to compete for this honor as they hold and show the animals in the ring while their teammates judge.

Clyde Snyder, Cairo, West Virginia, won the title of "Best Showman" and received a Parker fountain pen awarded by The Country Gentleman. Ben Gaines, Stanford, Kentucky, placed second, and Loren Peterson of Grace, Idaho, took third. These boys each received a pocket knife provided by the F. F. A.

Standard for F. F. A. Sign

L. M. SASMAN,
State Supervisor, Wisconsin

THE members of the Oshkosh, Wisconsin, chapter of the Future Farmers of America have built and adopted a standard upon which to display their F. F. A. markers. Every member of the local chapter uses this standard which is furnished to him by the chapter, and as far as possible places it in about the same position in front of the farm home. The boys are well pleased with the standard which can be made with a marker on either one or both sides as desired. They feel that it adds a certain dignity to the marker and commands more respect and attention on the part of the passer-by.



In the accompanying picture, John Boss, president of the Oshkosh chapter of Future Farmers of America, is standing behind one of the standards and marker used by this group. John is also wearing an official "O" which the Oshkosh chapter presents to all agriculture students who make the judging teams representing the school at the state contest.

Swift Essay Contest Continues

SWIFT AND COMPANY of Chicago have again offered \$1,000 in prizes to the vocational students, 4-H Club members, or other students enrolled in agricultural courses in the high school for the best essay dealing with methods used by Swift and Company to distribute meats, butter, eggs, poultry, and cheese. Essays are to be graded on thought, originality, expression, neatness, spelling, and rules of grammar. They must be in the mail not later than midnight of March 15, 1932.

Vocational agriculture students interested in winning one of these prizes should write direct to F. M. Simpson, Swift and Company, Chicago, Illinois, and ask for the announcement.

A Future Farmer Song Book

We are in receipt of a copy of a mimeographed neatly bound F. F. A. song book issued by the Bear River, Utah, chapter. The president writes us that the songs were assembled and edited by a committee of the members and that the boys find the song book helpful in promoting cheerfulness, good will, and co-operative effort.

A fine idea, this song book issued by an F. F. A. chapter.

Future Farmers Make Farm Survey

E. E. MAYHEW,
Story City, Iowa

THE Future Farmers of Story City, Iowa, recently completed a farm survey of the 96 sections which are considered the Story City trade territory.

The data gathered by the survey have been organized into map form and is available to interested farmers in 20 x 24-inch blue prints at 25 cents each.

The blue prints show all roads as paved, graveled, or dirt; all farms including size, locations of buildings, also owner's or renter's name; all school-houses and churches; the 96 section numbers; and well defined dividing lines between the parts of the three counties and six townships surveyed. The city of Story City is not included in the survey.

The map title indicates that the result of the study is known as the Story City Farm Survey, that it is original work of the Future Farmer boys, and that the officers of the club are Herbert Donhowe, president; Kenneth Nelson, vice-president; Merritt Canady, secretary; Alvin Thompson, treasurer; and Wayne Peak, sergeant-at-arms.

Other printed matter states that there were on the farms of the 96 sections March 1, 1931: 1,799 men, women, or children; 1,878 horses; 2,033 dairy cows; 71,360 hens; 3,186 brood sows; 1,470 acres of alfalfa; 3,625 fruit trees; 206 evergreen windbreaks; 96 silos; 174 tractors; 89 trucks; 499 automobiles; 323 machine sheds; 174 flowing wells; 194 farms having electricity; 360 telephones; 262 radios; and 304 power washing machines.

The data indicates that the average section of Story City farm land keeps 19 people, 19 horses, 21 dairy cows, 33 brood sows, 715 hens, 37 fruit trees, 2 evergreen windbreaks, 2 flowing wells, 1 silo, 2 tractors, 5 cars, 3 machine sheds, 2 farms having electricity, 4 telephones, 3 radios, 3 power washing machines, and 15 acres of alfalfa.

One interesting situation brought out by the survey was the odd division of a farm located in four different sections which are divided one way by a railroad right of way and its parallel county highway; the other way by a state



Story City, Iowa, vocational agriculture students

paved highway. To further complicate matters the house and garage are located across the paved highway from the barns and feed yards.

Another peculiar fact the boys dug up was that the section having the greatest number of brood sows is but a few miles from the one section having no brood sows.

In working out the plans for gathering the data, the boys first decided upon the area of the Story City trade territory. Next they drew a rough sketch showing the 96 sections and their numbers. From this rough sketch each of the 30 boys in turn chose sections to survey.

Each boy took a four-inch drawing which represented the section to be surveyed, also several questionnaires to each of the farms within his chosen sections. Within two weeks' time the boys had all the necessary figures and each farm sketched on its individual section map.

This material was all tabulated and organized by the boys into one original map from which the blue prints were made.

The boys feel that the experience obtained thru this project has made them much better acquainted with the community in which they live. The farmers have become better acquainted with the boys and have learned several things such as the number of the section in which they live, and so forth. From the viewpoint of the instructor such a survey and map is a real challenge to the boys, and is a means of creating greater co-operation within the community.

Ohio F. F. A. Chapters Exhibit at State Fair

CARL G. HOWARD,
Assistant State Supervisor

THIRTY Ohio Chapters of Future Farmers of America made exhibits in the Junior Fair division of the 1931 Ohio State Fair. These exhibits were designed to portray F. F. A. ideas and chapter activities. This is the third year for F. F. A. exhibits at the state fair. They have been very successful in attracting the interest of the public and acquainting it with the purposes of the organization. Exhibits are judged on the following points:

- a. Use of Future Farmer idea.. 50
- b. Quality of exhibit..... 30
- c. Originality of exhibit..... 20

Total.....100

Transportation and liberal premiums were provided. Twenty premiums were offered ranging from \$75 for first down to \$5. Fredericktown chapter has set the pace by winning first place the last two years. Robert Clark, president of the Ohio Association of Future Farmers of America, was president of the winning chapter the past year. Greenfield chapter won second premium and Canal Winchester chapter was third.

Other classes for vocational agriculture students at the Ohio State Junior Fair are provided in farm shop, poultry, swine, sheep, wool, dairy cattle, beef cattle, potatoes, and apples.



First prize exhibit, Ohio State Junior Fair, 1931, F. F. A. Department

Vocational agriculture students at the Washington Union High School of Fresno, California, are carrying on a grape marketing contest "on paper." Each student ships one mythical car daily to any selected market where he feels a fair price may be obtained. Complete data on the cost of shipment, number of days required for shipment, and profit or loss of the transaction, are kept. These Future Farmers hope to get a better understanding of marketing while the profits and losses are still "on paper."

Orland, California, high school agriculture students participating in a Future Farmer judging contest at the Glenn County Fair this year won the W. S. Guilford trophy for the second successive year. Willows High School won the trophy in 1926 and 1927, and the two schools each have a chance for permanent possession if either wins next year.

